UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,762	12/21/2001	Abbas Rashid	NEXSI-01223US0	6231

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SHUMAKER & SIEFFERT, P. A.
8425 SEASONS PARKWAY
SUITE 105
ST. PAUL, MN 55125

EXAMINER
BHANDARI, PUNEET

ART UNIT	PAPER NUMBER
2666	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)
Office Action Summary		10/036,762	RASHID ET AL.
		Examiner	**Art Unit**	
		Puneet Bhandari	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>12/21/2001</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>39-62</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>39-62</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>04/22/2005</u>.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Claim Objections

1.   Claims **39, 40, 43, 48, 50, 51, 54, 55, 56, 57 and 58** objected to because of the

following informalities:

Regarding claim **39**, an objection is made to the use of the phrase "adapted to"

on line 4, page 2. The use of this phrase is optional language (see MPEP-2106.II.C).

Regarding claim **40**, an objection is made to the use of the phrase "adapted to"

on line 11-12, page 2. The use of this phrase is optional language (see MPEP-

2106.II.C).

Regarding claim **43**, an objection is made to the use of the phrase "adapted to"

on line 24, page 2. The use of this phrase is optional language (see MPEP-2106.II.C).

Regarding claim **48**, an objection is made to the use of the phrase "adapted to"

on line 15, page 3. The use of this phrase is optional language (see MPEP-2106.II.C).

Regarding claim **50**, an objection is made to the use of the phrase "adapted to"

on line 15, page 4. The use of this phrase is optional language (see MPEP-2106.II.C).

Regarding claim **51**, an objection is made to the use of the phrase "adapted to"

on line 22, page 4. The use of this phrase is optional language (see MPEP-2106.II.C).

Regarding claim **54**, an objection is made to the use of the phrase "adapted to"

on line 3, page 5. The use of this phrase is optional language (see MPEP-2106.II.C).

Regarding claim **55**, an objection is made to the use of the phrase "adapted to"

on line 5, page 5. The use of this phrase is optional language (see MPEP-2106.II.C).

Regarding claim **56**, an objection is made to the use of the phrase "adapted to"

on line 4, page 2. The use of this phrase is optional language (see MPEP-2106.II.C).

Regarding claim **57**, an objection is made to the use of the phrase "adapted to"

on line 1, page 6. The use of this phrase is optional language (see MPEP-2106.II.C).

Regarding claim **58**, an objection is made to the use of the phrase "adapted to"

on line 8, page 6. The use of this phrase is optional language (see MPEP-2106.II.C).

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims **39-62** are rejected under 35 U.S.C. 102(e) as being anticipated by Erimli

et al. (US 6,405,258).

Regarding claim **39**, Fig. 1 of Erimli et al. teaches a cross-bar switch (12a)

comprising, a set of input ports (16) to receive data packets and a set of sink ports (16)

in communication with said set of input ports to accept and forward the data packets,

also disclosed in column 4, lines 20-48 and column 5, lines 6-27.

Fig. 6 of Erimli et al. also teaches first sink port (90a) in a set of said sink ports

(90a and 90b) having a communication link interface (Data interface) and the

communication link interface including a Retry input (control logic 96), also disclosed in column 14, lines 1-15.

The limitation said first sink port (90a-output port) respond to a signal on said Retry input (control logic 96) is disclosed in column 15, lines 10-55. The reference discloses output port (90a) generates a pause frame upon receiving signal from the port vector FIFO incorporated in control logic.

The step of aborting transmission of a first data packet (discontinue transmission of data packet) is disclosed in column 15, lines 40-50. The reference discloses that pause frame causes the network station to discontinue transmission of data packet.

The step of waiting a predetermined period of time is disclosed in column 15, lines 40-55. The reference discloses pause interval during which no information is sent.

The step of transmitting said first data packet after waiting said predetermined period of time is disclosed in column 15, lines 55-65. The reference discloses that data packets queues for transmission are transmitted after the pause interval has expired.

Regarding claim **40, 51 & 58,** the step of operating said Retry input (control logic 96) in a hold-off mode (pause interval), and the said sink port respond to said signal on said retry input when said retry input is programmed to operate in said hold-off mode by discontinuing transmission on said communication interface after transmission of the data packet is complete, until the said signal is altered is disclosed in column 15, lines 44-65.The reference disclosed that once the current data packet has been transmitted, additional data frames that are queued for transmission will not be transmitted until the pause interval duration has been expired.

Regarding claim **41, 52 & 59,** Fig 6 anticipates a retry mode register (500a and 500b) controlling the operating mode (monitor status of output queues) of the said retry input (control unit-96) also disclosed in column 14, lines 60-67. The reference discloses thresholds registers (500a and 500b) help control logic to monitor status of output queues.

Regarding claim **42, 53 & 60,** fig 6 anticipates a retry time register (Pause registers 520a and 520b) identifying predetermined time period also disclosed in column 14, lines 1-47. The reference discloses Pause register store a pause interval value that is transmitted with pause frame to specify pause length.

Regarding claim **43,** Fig. 6 of Erimli et al. also teaches first sink port (90a) in a set of said sink ports (90a and 90b) having a communication link interface (Data interface) and the communication link interface including a Retry input (control logic 96), also disclosed in column 14, lines 1-15.

The limitation said first sink port (90a-output port) respond to a signal on said Retry input (control logic 96) is disclosed in column 15, lines 10-55. The reference discloses output port (90a) generates a pause frame upon receiving signal from the port vector FIFO incorporated in control logic.

The step of aborting transmission of a first data packet (discontinue transmission of data packet) is disclosed in column 15, lines 40-50. The reference discloses that pause frame causes the network station to discontinue transmission of data packet.

The step of waiting a predetermined period of time is disclosed in column 15, lines 40-55. The reference discloses pause interval during which no information is sent.

The step of transmitting said first data packet after waiting said predetermined period of time is disclosed in column 15, lines 55-65. The reference discloses that data packets queues for transmission are transmitted after the pause interval has expired.

Regarding claim **44**, Fig. 1 of Erimli et al. discloses that the switches 12a, 12b and 12c are connected in a ring topology.

Regarding claim **45**, Fig.1 of Erimli et al discloses data ring coupling switches 12a, 12b and 12c, and hence couples each sink port in said set of sink ports to each input ports in said set of input ports.

Regarding claim **46 & 54**, sink port in said set of sink port snoops data packets on each data ring in said set of data rings is disclosed in column 6, lines 39-53. The reference discloses that Internal Route Checker, which is coupled to the output ports, snoops the data packets.

Regarding claim **47 & 55**, sink port in said set of sink port snoops data packets on each data ring in said set of data ring in said set of data rings to determine whether said data packet are targeted to a destination supported by the said first sink port is disclosed in column 6, lines 39-53. The reference discloses that Internal Route Checker, which is coupled to the output ports, snoops the data packets in data bus and forward the data packet to appropriate destination ports.

Regarding claim **48 & 56**, sink port in said set of sink port snoops data packets on each data ring in said set of data ring in said set of data rings and determine whether to accept said first data packet based on set criteria is disclosed in column 6, lines 39-53. The reference discloses that Internal Route Checker, which is coupled to the output

ports, snoops the data packets in data bus and forwards the data packet to appropriately.

The limitation, whether to accept said first data packet by determining said first sink port having a sufficient storage space for storing first data packet is disclosed in column 15, lines 10-21.The reference discloses control logic, which is also coupled to the output ports, determines whether to accept the data packet by determining the storage space.

The limitation, whether to accept said first data packet by determining said first sink port supporting a destination targeted by said first data packet is disclosed in column 6, lines 35-45. The reference discloses that Internal Route Checker, which is coupled to the output ports, snoops the data packets in data bus and forward the data packet to appropriate destination ports.

The limitation, whether to accept said first data packet by determining a total number of packets being received by said first sink port not exceeding a predetermined number of packets is disclosed in column 15, lines 10-21.The reference discloses control logic, which is also coupled to the output ports, determines whether to accept the data packet based on the values stored in the threshold registers.

Regarding claim **49**, Fig.1 of Erimli et al. discloses a ring interface (expansion port 30) coupled to said set of data rings to receive data from data packets also disclosed in column 5, lines 28-33.

The limitation, storage buffer (output queues (58a and 58b)) couple to the said ring interface to receive and store said data is disclosed in column 14, lines 15-23 and

Fig.6. The reference discloses switch has output queues (58a and 58b) that store the frame pointer.

Fig 6 of Erimli et al. discloses an output port (90a and 90b) including a communication link interface (data interface), wherein said output port (90a and 90b) is coupled to said storage buffer (output queues (58a and 58b)) to receive data from said storage buffer and transmit said data on said communication link interface (data interface) and also disclosed in column 14, lines 15-23.

Regarding claim **50**, Fig 6 of Erimli et al. discloses a sink port (90a and 90b) to accept and forward data packets, a storage buffer (58a and 58b) and an output port (90a and 90b) including a communication link interface (data interface), wherein said output port (90a and 90b) is coupled to said storage buffer (output queues (58a and 58b)) to receive data from said storage buffer and transmit said data on said communication link interface (data interface) and also disclosed in column 14, lines 15-23.

Fig. 6 of Erimli et al. also discloses the communication link interface including a Retry input (control logic 96), also disclosed in column 14, lines 1-15.

The limitation said first sink port (90a-output port) respond to a signal on said Retry input (control logic 96) is disclosed in column 15, lines 10-55. The reference discloses output port (90a) generates a pause frame upon receiving signal from the port vector FIFO incorporated in control logic.

The step of aborting transmission of a first data packet (discontinue transmission of data packet) is disclosed in column 15, lines 40-50. The reference discloses that pause frame causes the network station to discontinue transmission of data packet.

The step of waiting a predetermined period of time is disclosed in column 15, lines 40-55. The reference discloses pause interval during which no information is sent.

The step of transmitting said first data packet after waiting said predetermined period of time is disclosed in column 15, lines 55-65. The reference discloses that data packets queues for transmission are transmitted after the pause interval has expired.

Regarding claim **57**, Fig. 1 of Erimli et al. discloses a system, comprising a first cross-bar switch (12a) with a first set of input ports to receive data packets (16) and a first set of sink ports (16) in communication with first set of input ports to accept and forward data packets also disclosed in column 4, lines 20-48 and column 5, lines 6-27.

Fig. 6 of Erimli et al. discloses a first sink port (90 a) in said first set of sink ports (90a and 90b) includes a first communication link interface (data interface) including a Retry input (control logic 96).

Fig. 1 of Erimli et al. discloses a second cross-bar switch (12b) with a second set of input ports to receive data packets.

Fig. 6 of Erimli et al. discloses first input port in (90b) said second set of input ports (90a and 90b) includes a second communication link interface (interface between 90b and 90a) including a first output in communication with said Retry input (control logic 96) also refer column 13, line 55-67 and column 14, lines 1-23.

The limitation said first sink port (90a-output port) respond to a signal on said

Retry input (control logic 96) is disclosed in column 15, lines 10-55. The reference

discloses output port (90a) generates a pause frame upon receiving signal from the

port vector FIFO incorporated in control logic.

The step of aborting transmission of a first data packet (discontinue transmission

of data packet) is disclosed in column 15, lines 40-50. The reference discloses that

pause frame causes the network station to discontinue transmission of data packet.

The step of waiting a predetermined period of time is disclosed in column 15,

lines 40-55. The reference discloses pause interval during which no information is sent.

The step of transmitting said first data packet after waiting said predetermined

period of time is disclosed in column 15, lines 55-65. The reference discloses that data

packets queues for transmission are transmitted after the pause interval has expired.

Regarding claim **61**, Fig 6 of Erimli et al. discloses first communication link

interface includes and data output, and second communication link includes data input

in communication with data output column 16, lines 19-27. The reference discloses

method of transmitting the data from station 1 using data output interface to the switch

12 and using the data output interface to receive the transmitted data to the station 2

which could be on the same switch or any other switch 12.

Regarding claim **62**, the step of detecting the collision in second communication

link interface is disclosed by the step of monitoring the queue in-order to prevent queue

from overflowing which could result in collision disclosed in column 15, lines 10-20.

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure are Szczepanek et al. (US 6,621,818), Sang et al. (US

6,563,818), Drummond-Murray (US 6,667,985) and Desnoyers et al. (US 6,480,897).
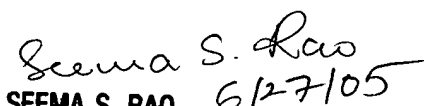
Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Puneet Bhandari whose telephone number is 571-272-

2057. The examiner can normally be reached on 9.00 AM To 5.30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

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Puneet Bhandari
Examiner
Art Unit 2666

SEEMA S. RAO
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